Stereoscopic color-infrared photographs are most suitable for identifying wetland and riparian habitats. Color, texture, pattern and physiographic position are important features of these habitats that can be identified best on this type of photography. Land use and land cover can be identified equally well. Wetland vegetation is generally more dense and exhibits a higher degree of lushness and vigor than does either upland or riparian vegetation. The vegetative factors that combine to produce a specific response or photographic signature include color, shape, growth habit, height, branching pattern and leaf size. When stereoscopically viewed physiographic positions are associated with these vegetative characteristics, wetland locations and boundaries become more obvious on an aerial photograph. Riparian habitats are identified in a similar manner but are generally higher in the physiographic profile and less dense and lush. Upland land use and land cover can be identified mainly by evidence of human habitation and modification.

Combining field work to correlate photo signatures to specific habitat types or land use with the above methods allows an experienced photo interpreter to extrapolate based on patterns to areas not checked in the field. Generally this produces a very accurate product. However, due to the fact that a photograph is simply a snapshot in time, variations can occur between the date of photography and the present time. Some errors of omission and commission may also occur as with any data produced using remotely sensed technologies. Natural Resources Conservation Service soil surveys and United States Geological Survey topographic maps and water resource data were primary collateral data sources used to increase the accuracy of the mapping.

Wetlands and deepwater habitats were classified according to "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin et al. 1979), the Department of the Interior standard for technical wetland identification and classification. Riparian habitats were classified according to "A System for Mapping Riparian Areas in the Western United States" (1997), the U.S. Fish and Wildlife Service standard. Land use and land cover was classified according to "A Land Use and Land Cover Classification System for Use with Remote Sensor Data" (Anderson et al. 1976).

Cartography

After the aerial photography was interpreted the delineations were transferred onto a 7 mil stable based sheet of mylar overlaying a black and white version of a 1:24,000 scale U. S. Geological Survey topographic base map using established Service procedures and protocols found in "Cartographic Conventions for the National Wetlands Inventory" (USFWS 1994). A special optical instrument called a Zoom Transfer Scope enabled a cartographic technician to view the delineated photograph superimposed on the topographic base map. The photograph delineations were then traced onto the overlain base map after which a 4 mil stable based mylar overlay was used for labeling. The three layers, USGS base map, linework overlay and lettering overlay, were then composited reprographically to complete map compilation and create final maps (Figure 3). The classifications are shown on the maps as alpha-numeric codes and are identified and explained in the legend at the bottom of the map.